

100% of the time in the field

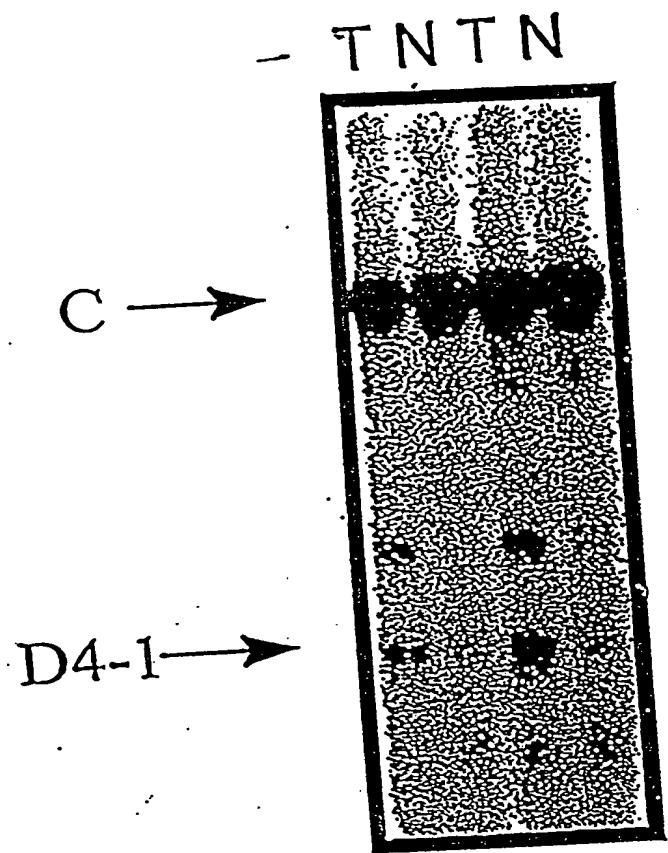


FIGURE 1

1 cttcaaagg tcccgcatga aaattactta aacgttgcac acaacgtttc qaaaaatctt
 61 ttgtggaaa agaaaaggaa attcagtgt tgagtctcg caggagttaa gtaatgcag
 121 cttaaaaataa ~~tgcgaaaaaa~~ gaagcgcta tctggggca gagtccccctt gattttttc
 181 ctgtgccaga tgattagtgc actggaaaga cctcttgat caaaacttc tgaagacttg
 241 gtacagcctc caaccatcac ccaacagttt caaaaggatt acattatttg ccctcgggag
 301 aatattgtaa tccagtgtga agccaaaggaa aacccccc caagtttc ctggaccgcgt
 361 aatgggactc atttgatcatc cgtaaaagac cctctggta ccatgaagcc tggcacagga
 421 acgctcataa ttaacatcat gagcgaaggg aaagotgaga cctatgaagg agtctatcg
 481 tgcacgcaaa ggaacgaacq cggagctgca gtttctataa acattttgtt ccgccccatcc
 541 agatccatc tggaccaaa agaaaaactt gaaccatca cacttcaaaag tggtoagtct
 601 ttagtacttc cctcgagacc cccaatttggaa ttaceaccac ctataatattt ttggatggat
 661 aattcccttc aaagacttcc acaaagttag agagtttoto aaggtttggaa tggggacott
 721 tatttttcca atgtctccc agaggacacc cgcgaagact atatctgtt tgctagattt
 781 aatcataactc aaaccataca gcagaagca cctattttctg tgaaggat ttcagtggat
 841 gaattgtatc acatatagtc tgctaatattt agtgcacactg agttttatgg tgctaaatca
 901 agtagagaga ggccaccaac atttttaact ccagaaggca atgcaagttaa caaagaggaa
 961 ttaagagaa atgtcttc actggatgtc attgcagaag gactgcctac cccaatttattt
 1021 tactggcaaa aggaagatgg aatgtctacc aaaaacagga cagtttataa gaactttggag
 1081 aaaaccttc agatcattca tggatgttgc gcaactctg gaaatttacca atgtatagca
 1141 aaaaatgcataa taggagccat ccacatacc attttttttt gatgttgc gatgttgc
 1201 tggatcacag cccctcaaaa acccagaattt agtggatgtt cttttttttt ttcacatc
 1261 agatctatc gcaaccccaaa cagaaaaata gatggcgatc tttttttttt ttcaatgtt
 1321 attggccctg atgaccccaaa cagaaaaata gatggcgatc tttttttttt ttcaatgtt
 1381 caaagaaatc caagtgcagt atatcgtt ~~atgtcttc~~ atgtatgtt atatgttactg
 1441 gcaaacgcataa ttgtaaatgt gatgttgc gatgttgc tccaccaccc tgcacacaca
 1501 ctctaccagg tcattgcaaa cggccgtct tttttttttt ttcacatc
 1561 ctcccaacca tggatgttgc taaaggatc aaaaactt gatgttgc tttttttttt ttcacatc
 1621 gttttcatg aaaaatggaaatc tttggaaatc aaaaactt gatgttgc tttttttttt ttcacatc
 1681 cctgtggccc aaaaaggacac tacggaaact tatactgttgc ttgtcaaggaa taatttaggg
 1741 atggcaagaatc atgaaatgtca cttacagccc gatatacgat ttgtcaaggaa aggaggatcg
 1801 gtgtcccttgc aatgtcaatc gaaacatgtt cacacccatc ccctctactg cctgtggctg
 1861 aaggacacca gggactgca cagtgttgc aggttctactg ttgtcaaggaa tcatctactg
 1921 gtatgttgc tcatgttgc tgacaggccc acctacactg gtgttgc tcatctactg
 1981 gacagctct ccccgccatc tttttttttt ttcacatc
 2041 gtttacatg tcccaatcc tcccttgc tttttttttt ttcacatc
 2101 gttcactgt catggaccc accgtatgtc aacaatagcc ccattacaaa attcatcatc
 2161 gaatatgttgc atgcaatgtca caaggccagg ctgtggccacc accaaacttga agtttctgg
 2221 acacagacca cggccatgttgc gatgttgc tttttttttt ttcacatc
 2281 gcagtgttgc gatgttgc tttttttttt ttcacatc
 2341 gcttcacatc cagataaaaaa ccccccacatgttgc tttttttttt ttcacatc
 2401 ttggagatc cgtggaaatc tttttttttt ttcacatc
 2461 aaatgttgc gggccatgttgc gatgttgc tttttttttt ttcacatc
 2521 gtatgttgc tttttttttt ttcacatc
 2581 gccccttgc acatgggggtt tttttttttt ttcacatc
 2641 gaccccttgc tttttttttt ttcacatc
 2701 gagggttgcact gggaccatgttgc tttttttttt ttcacatc
 2761 atttttttttgc aatgttgc tttttttttt ttcacatc
 2821 atcccttgc tttttttttt ttcacatc
 2881 ctttttttttgc tttttttttt ttcacatc
 2941 agatgttgc tttttttttt ttcacatc
 3001 ccaacactgg actcttcac tttttttttt ttcacatc
 3061 acagatgttgc tttttttttt ttcacatc
 3121 gatttttttttgc tttttttttt ttcacatc
 3181 ctttttttttgc tttttttttt ttcacatc
 3241 gaccccttgc tttttttttt ttcacatc
 3301 gtttcaatgttgc tttttttttt ttcacatc
 3361 aatatgttgc tttttttttt ttcacatc
 3421 gtttcaatgttgc tttttttttt ttcacatc
 3481 ttttttttttgc tttttttttt ttcacatc
 3541 gtttcaatgttgc tttttttttt ttcacatc
 3601 gatattgttgc tttttttttt ttcacatc
 3661 attttgttgc tttttttttt ttcacatc
 3721 aatgttgc tttttttttt ttcacatc
 3781 gtttcaatgttgc tttttttttt ttcacatc
 3841 gatgttgc tttttttttt ttcacatc
 3901 aatgttgc tttttttttt ttcacatc
 3961 gatgttgc tttttttttt ttcacatc
 4021 ttttttttttgc tttttttttt ttcacatc
 4081 ttttttttttgc tttttttttt ttcacatc

en

FIGURE 2A

B7110
B7111

'MPKKRILSAGRVLILFICOMISALEVPLDPKLEDLVQPPTIT
QOSPKDYIIDPRENIVIQCEAKGKPPPSFSWTRNGTHFDIDKDPLVTMKGPGTGLIIN
IMSEGKAETYEGVYQCTARNERGAAVSNNIIVRPSRSPLNTKEKLEPITLQSGQSLVL
PCRPPIGLPPPPIFWMDNSFQR LPQSERVSQGLNGDLYFSNVLPEDTREDYICYARFN
HTQTIQOKQPISVKVISVDELNDTIAANLSDEFYGAKSSRERPPTFLTPEGNASNKE
ELRGNVLSLECIAEGLPTPIIYWAKEDGMLPKNRTVYKNEFTLQIIHVSEADSGNYQ
CIAKNALGAIHHTISVRKAAPYWIAPQNLVLSPEGDTLICRANGNPKRISWLTN
GVPIEIAPODDPSRKIDGDTIIFSNSVQERSAVYQCNASNEYGYLLANAFVNVLAEPPR
ILTPANTLYQVIANRPALLDCAFFGSPLPTIEWFKGAKGSALHEDIYVLHENTLEIK
DATWIVKEIPVAQKDSTGTYTCAVARNLGMKNEVHLQPEYAVVQRGSMVSFECKVKH
DHTLSLTVLWLKDNRRELPSDERFTVDKDHLVADVSDDDSGYTCVANTTLDSVSASA
VLSVVAAPTPTPAPVYDVPNPFDELTQDLDKSQVLSWTPGDDNNSPITKFIIYEEDA
MHKGPLWHHQTEVSGTQTTAQLKLSPYVNSFRVMAVNSIGKSLPSEASEEQYLTKASE
PDKNPTAVEGLGSEPDNLEITWKPLNGFESNGPGLQYKVSWRQKDGDDEWTSVVVANV
SKYIVSGTPTFVFPYLIKVQALNDMGFAPEPAVVMGHSGEDLPMVAPGNVRVNNSTL
AEVHWDPVPLKSIRGHLQGYRIYYWKTQSSSKRNRRHIEKKILTQGSKTHGMLPGLE
PFSHYTLNVRVNGKGEGPASPDRVFTNTPEGVPSAPSSLKIVNPTLDSLTLEWDPPSH
PNGILTEYTLKYQPINSTHELGPLVDLKIPANKTRWTIKNLNFSTRYKFYFYAQTSAG
SGSQITEEÄVTTVDEAGILPPDVAGKVQAVNTRISNLAAAETYANISWEYEGPEH
VNFYVEYGVAGSKEEWREKEIVNGSRFFGLKGLMPGTAYKVRVGAVGDSGEVSSEDVF
ETGPAMASRQVDIATOGWFIGLMCAVALLILLIVCFIRRNKGKYPVKEKEDAHAD
PEIQPMKEDDGTFGEYSDAEDHKPLKKGSRTSDRTVKKEDSDDSLVVDYGEGVNGQFN
EDGSFIGQYSGKKEKEPAEGNESSEAPSVPNAMNSFV"

FIGURE 2B

HUMAN Nr-CAM	4097	TCTCATACTATGAACATATGGGTAGAGAGTATTTTC *****	4134
D4-1	1	TCTCATACTATGAACATATGGGTAGAGAGTATTTCTGCTGT *****	44
RAT Nr-CAM	3713	TCTCATACTATGGACATATGGTAGAAAGAACATGTTCTGCGGT	3757
D4-1	45	ATGTTAGTATTATGAGAATAGTTACAGCAAAAACATAACTCAGT ***	89
RAT Nr-CAM	3758	ATATGAGTATTATAAGAACAGAGCAAGAACATAACTCAGTCAGT	3802
D4-1	90	CAAAGTATATGTTAATATGAACCTGGAAATGCAAAAGTGCATACTT ***	134
RAT Nr-CAM	3802	CAGATGATACGTTAATATGAACCTGGGTGAAAAGG	3831
D4-1	135	TTTCATTICAAAAATGGGTATTCTTGATTTCTAAAAAAAAAAA	179

FIGURE 2C

hNr-CAM
hNr-CAM1/3AS

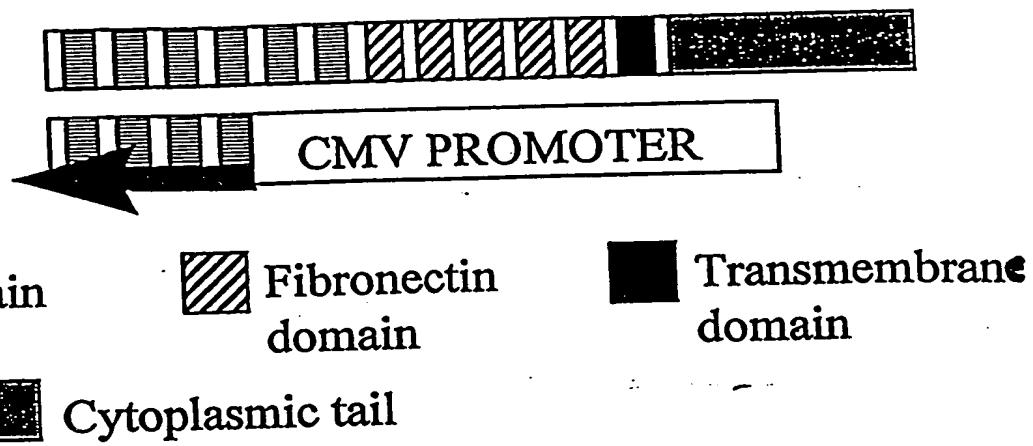
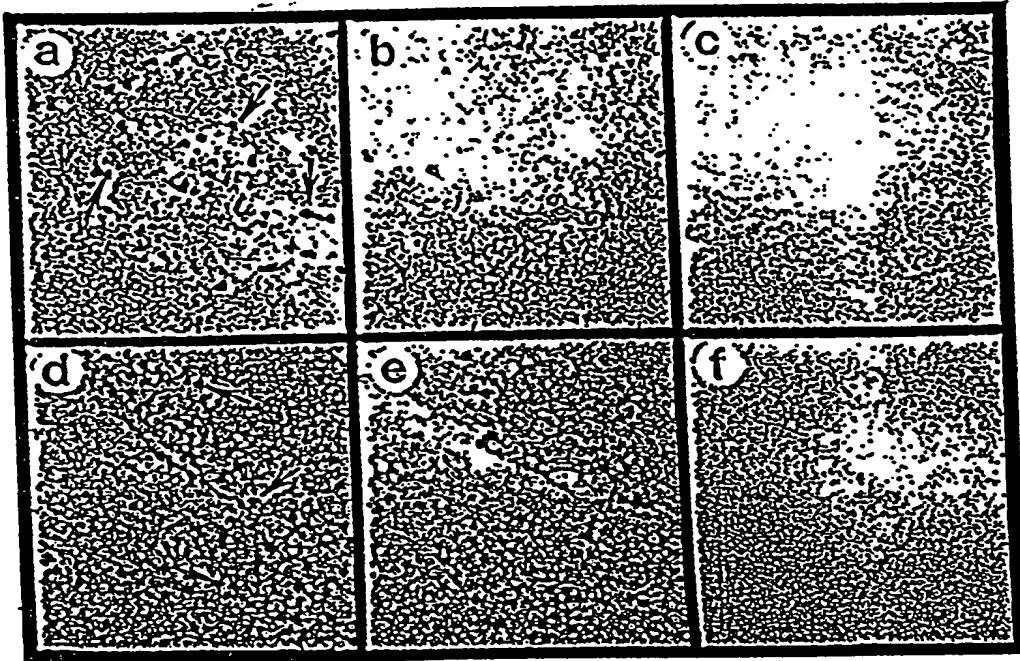
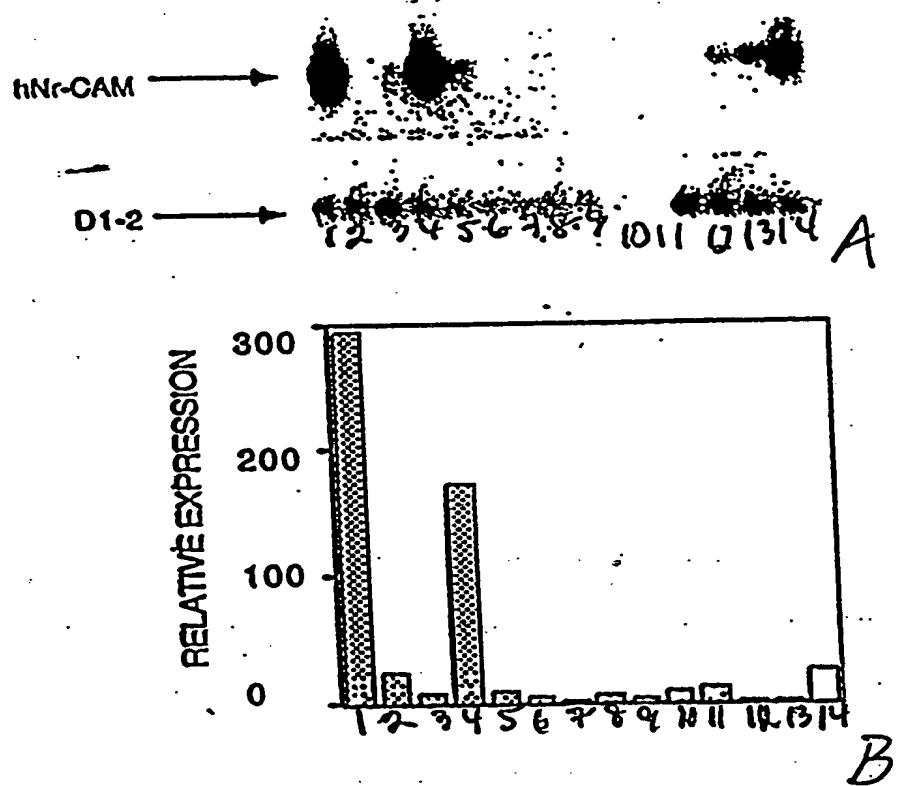


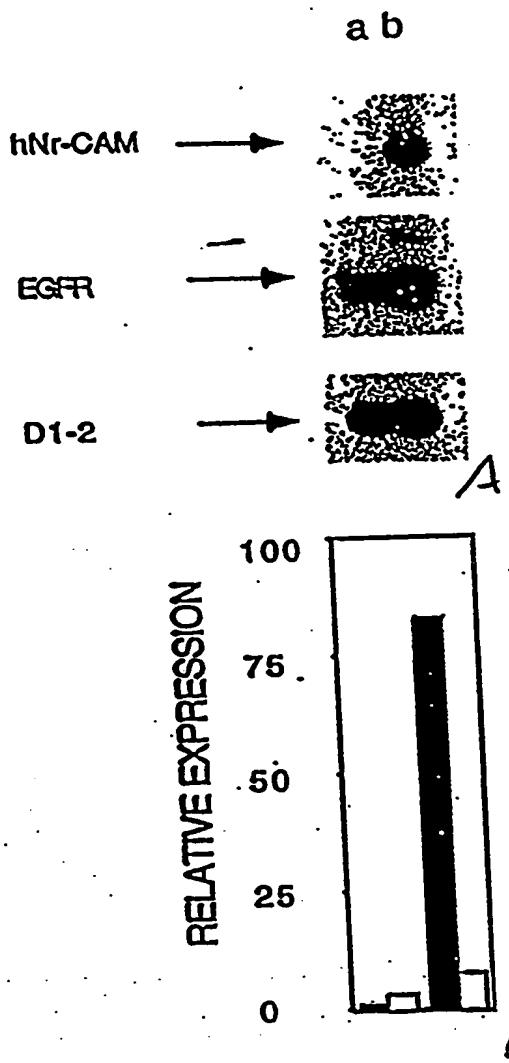
FIGURE 2D



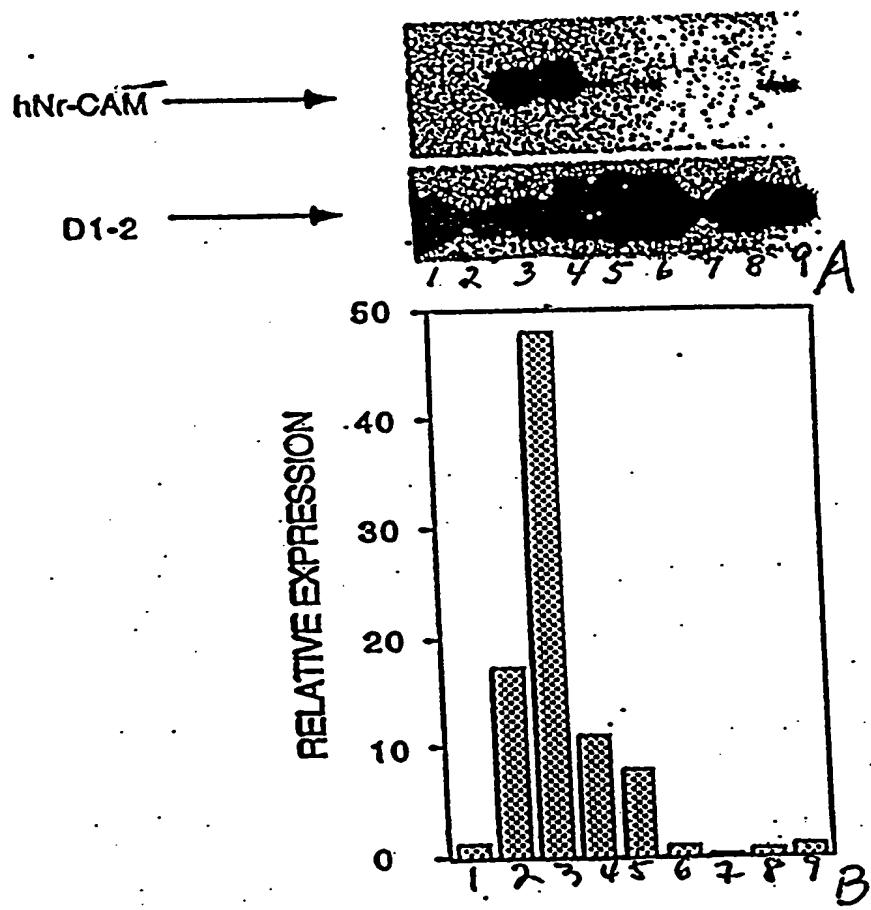
FIGURES 3A-F



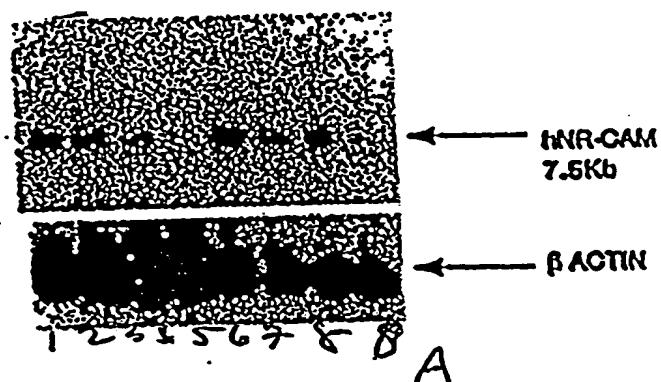
FIGURES 4A-B



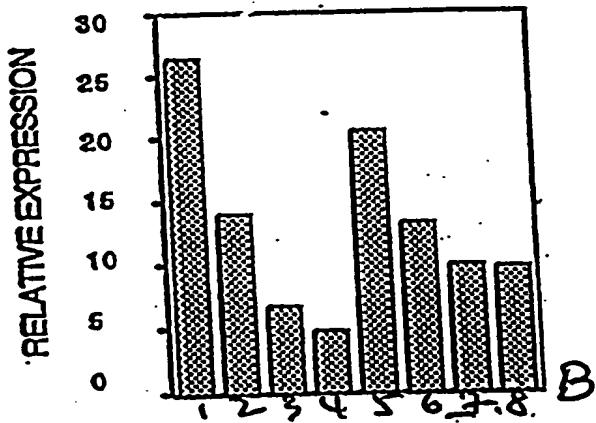
FIGURES 5A-B



FIGURES 6A-B

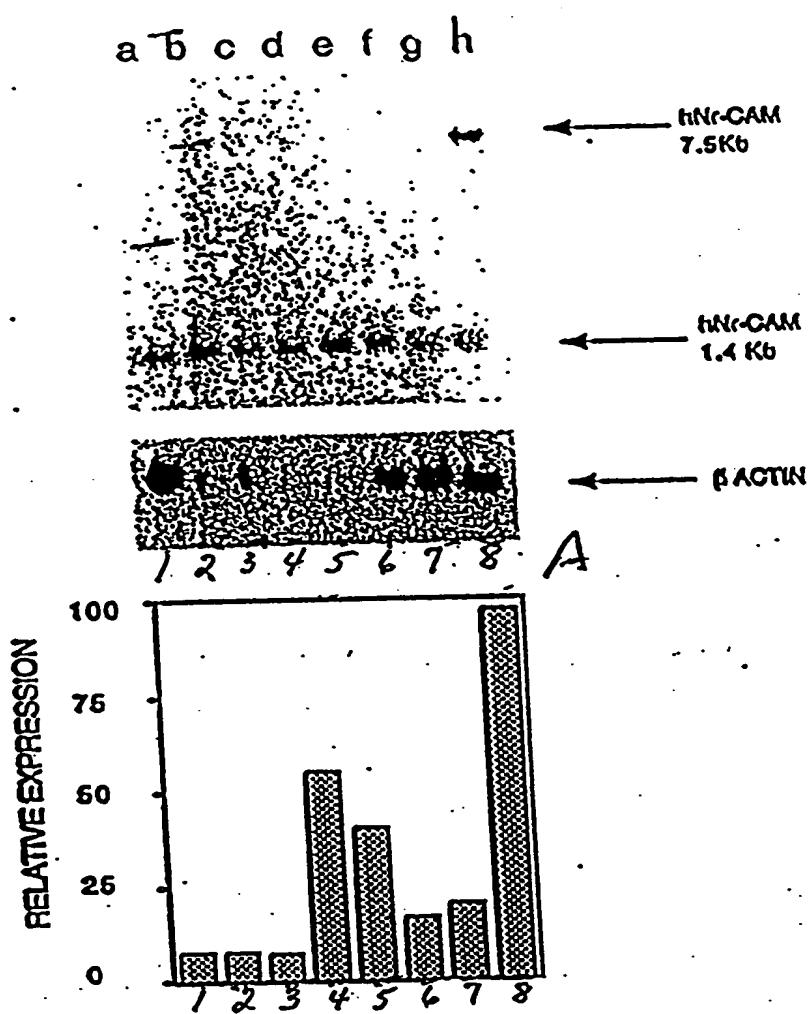


A



B

FIGURES 7A-B



FIGURES 8A-B

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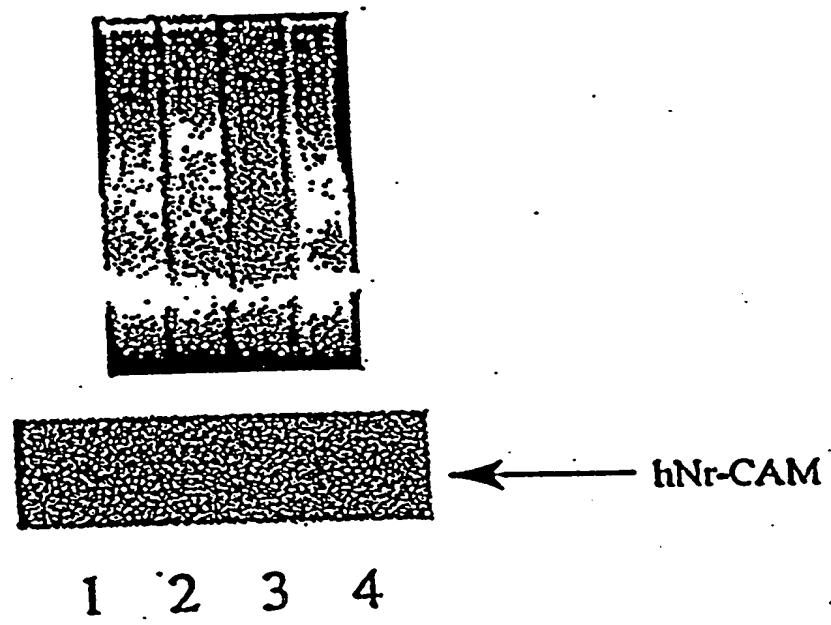
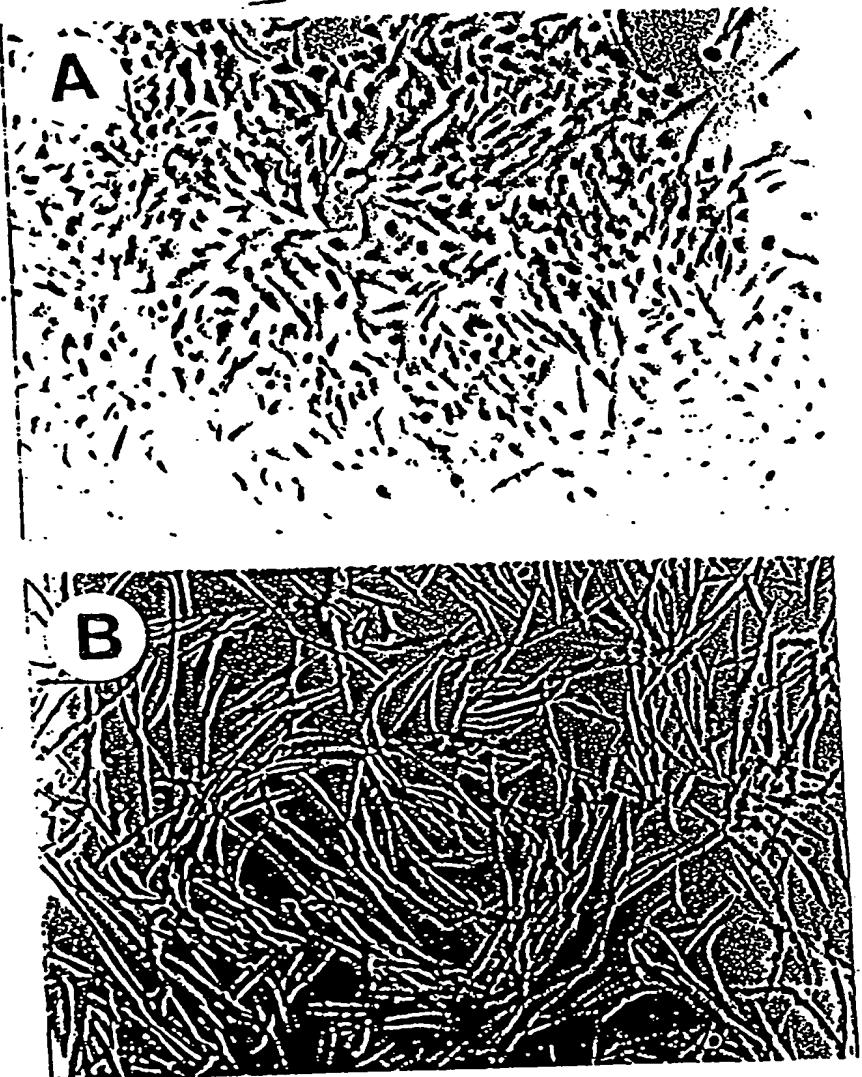


FIGURE 9



FIGURES 10A-B

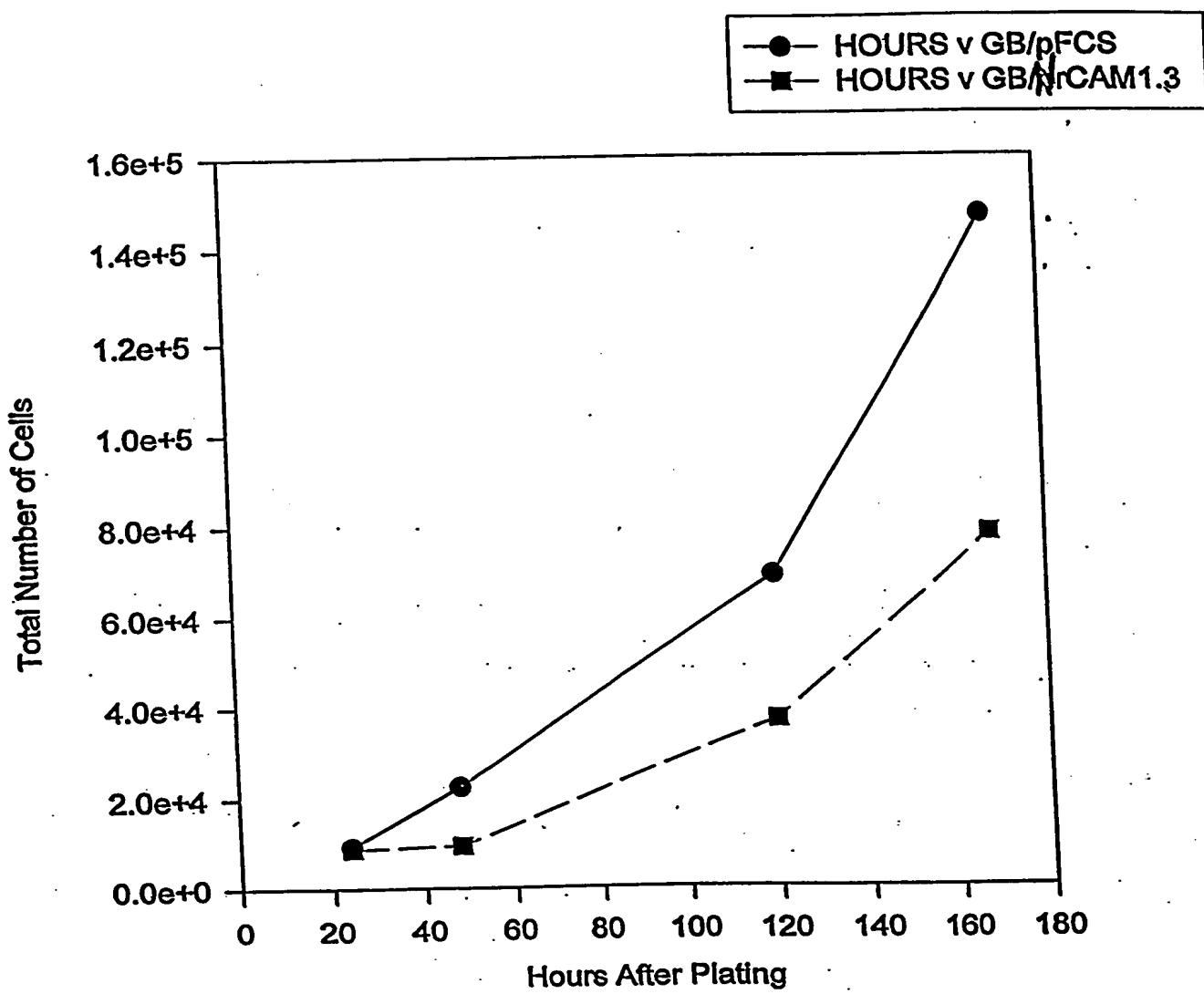


FIGURE 11

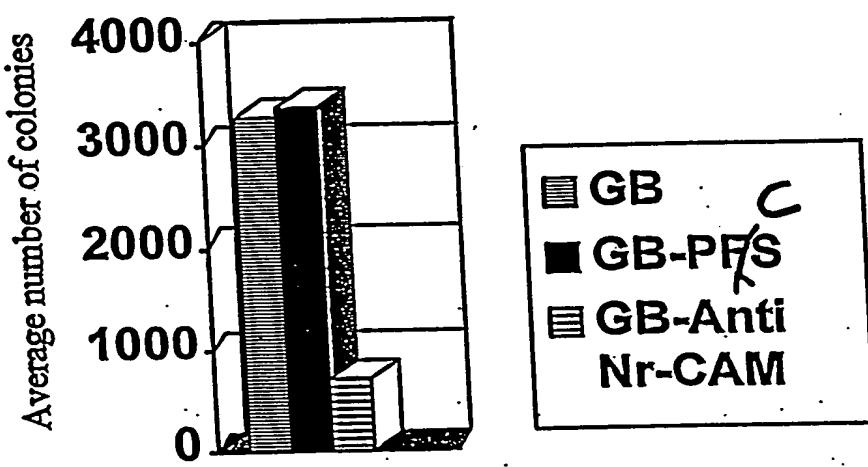


FIGURE 12

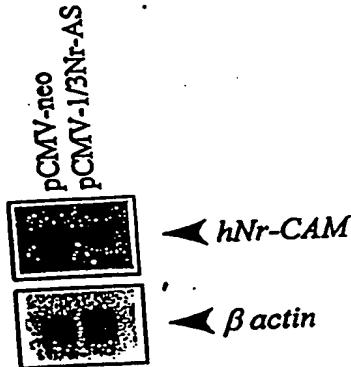


FIGURE 13

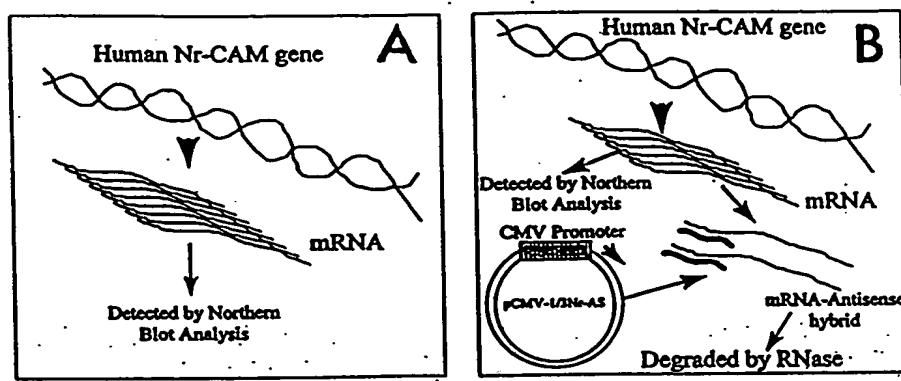


FIGURE 14A-B

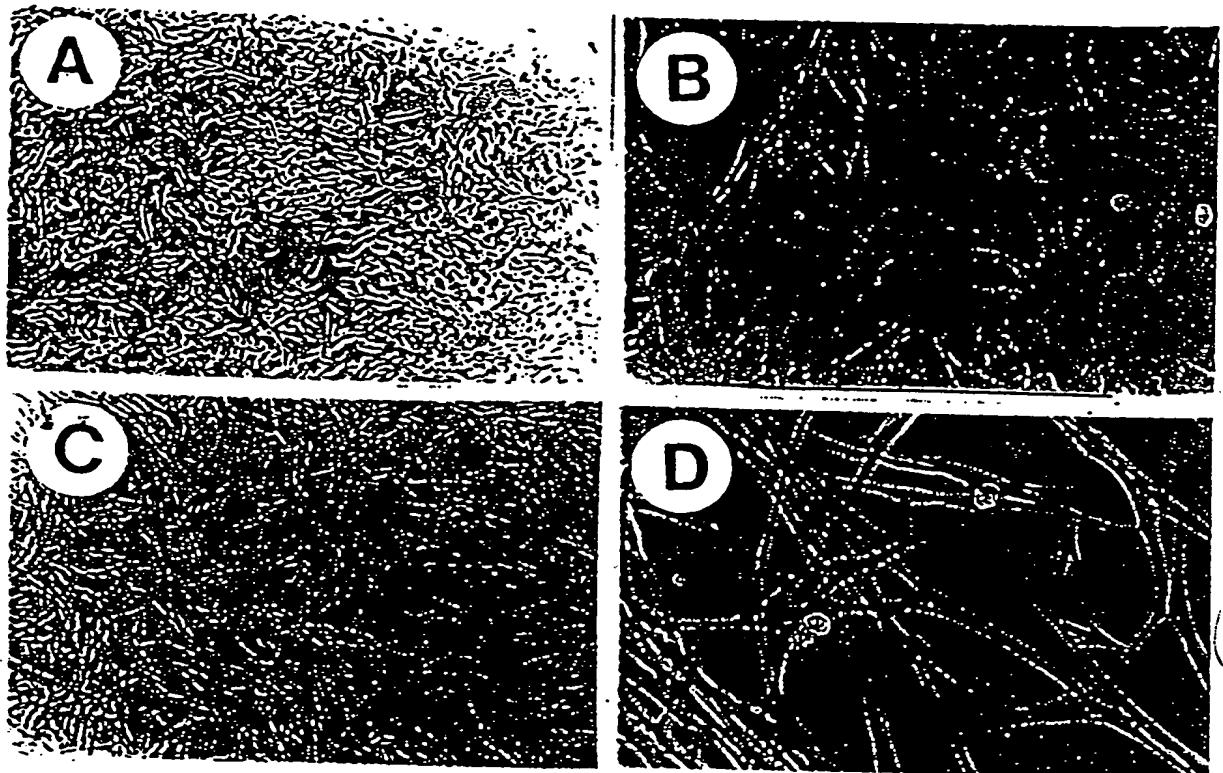


FIGURE 15A-D

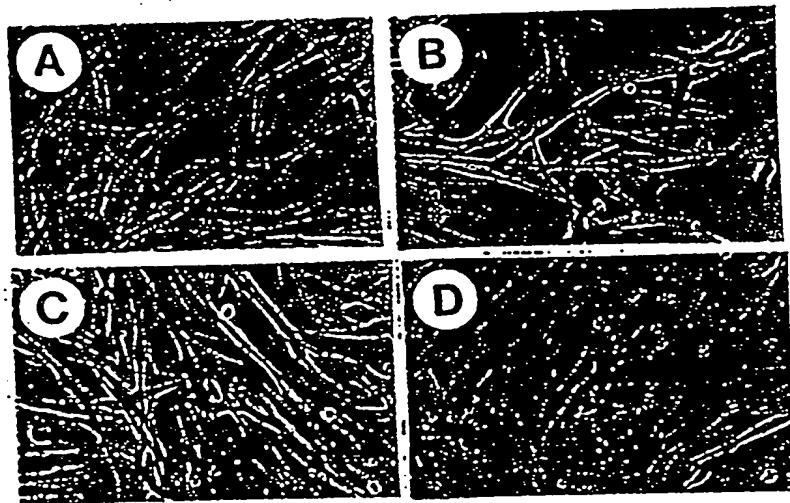


FIGURE 16A-D

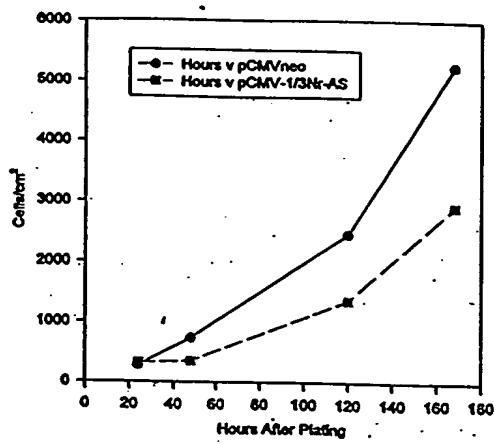


FIGURE 17

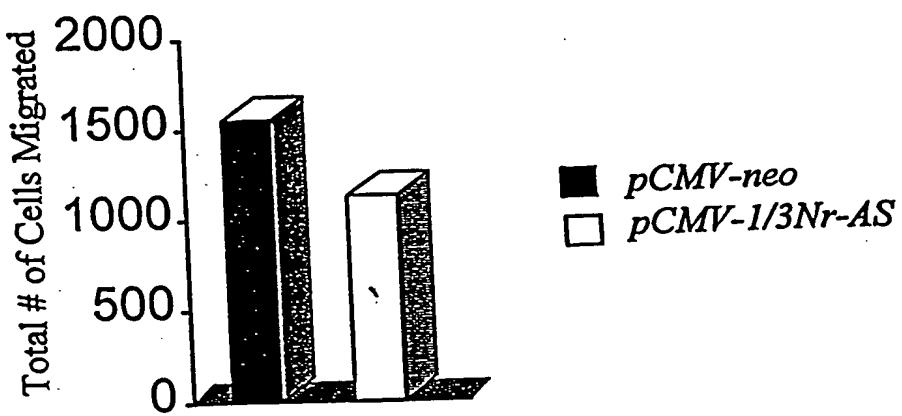


FIGURE 18

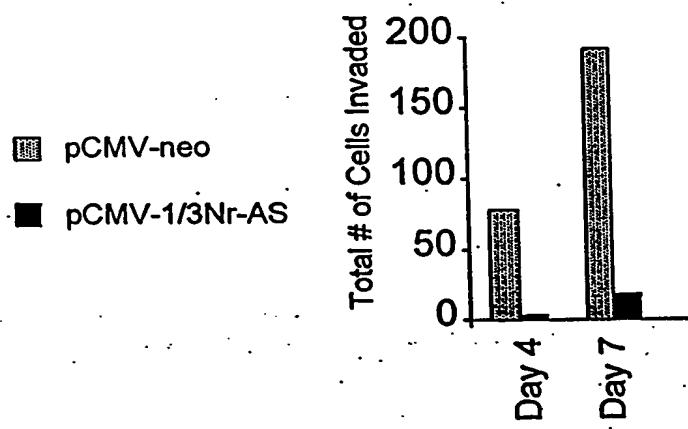


FIGURE 19

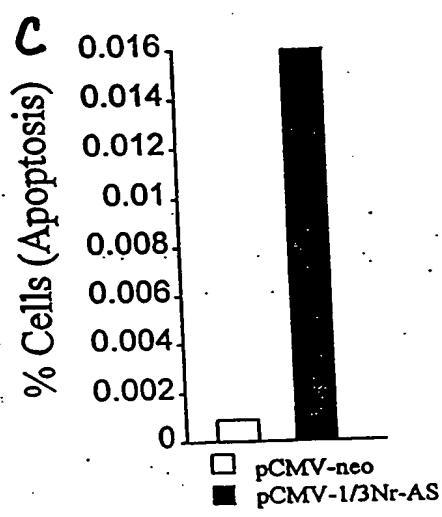
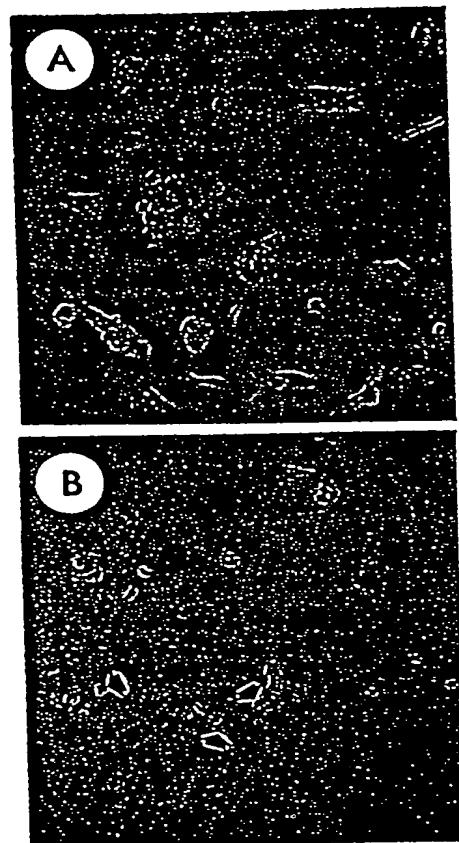


FIGURE 20A-C



FIGURE 21

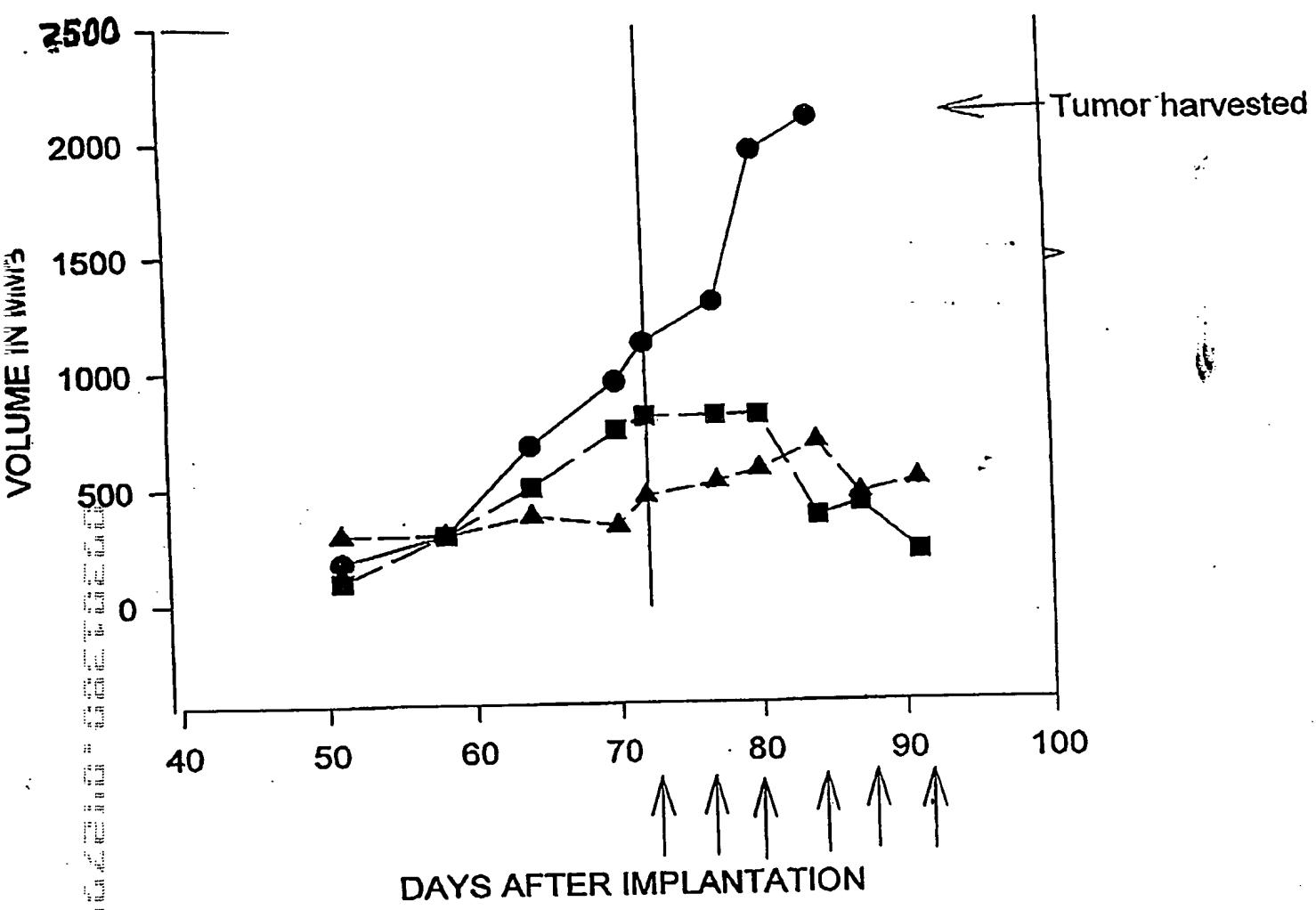


FIGURE 22A

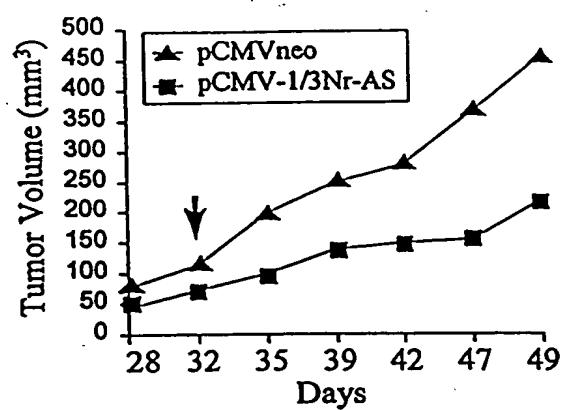
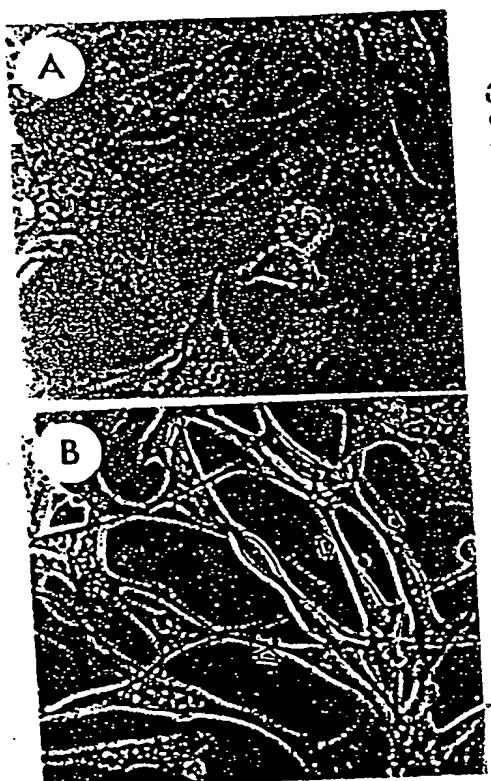


FIGURE 22B



Average # of colonies (1×10^5)

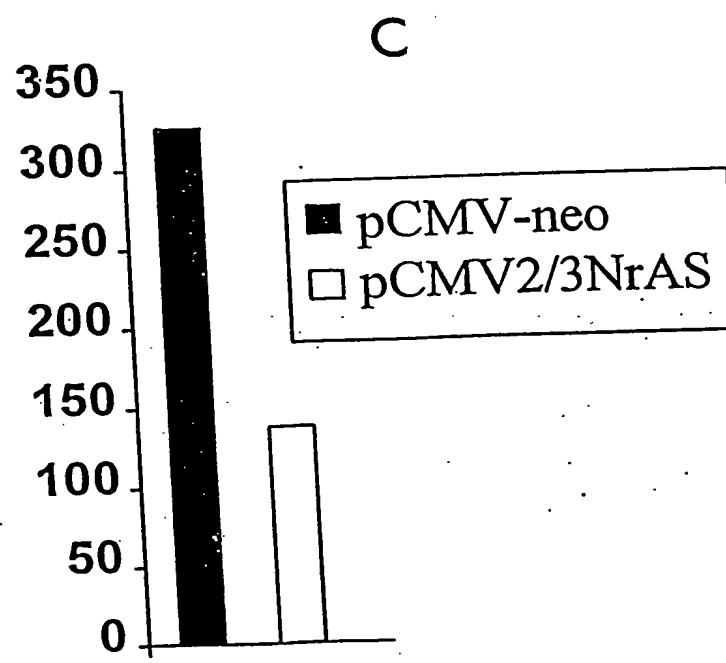
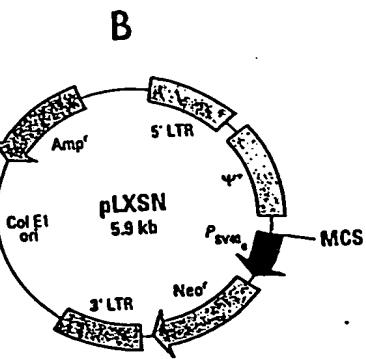
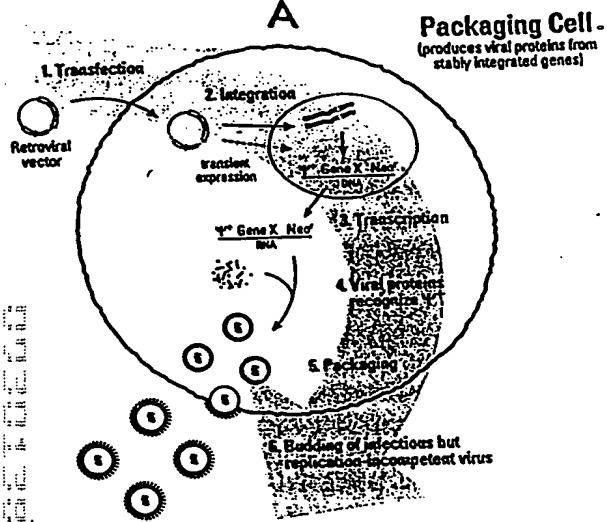


FIGURE 23A-C

Human Nr-CAM: 1 ATGCCGAAAAAGAAGCGCTTATCTGGGGCAGAGTGCCTGATTCTCTCCGTGCCAG 60
 Rat Nr-CAM: 19 ATGCCGAAAGAAGAAGCGCTTGTCTGCAGGCCAGAGGCCCTGTTCTCTCCGTGCCAG 78
 Human Nr-CAM: 61 ATGATTAGTGCACTGGAAGTACCTCTTGATCCAAAACCTCTTGAAAGACTTGGTACAGCCT 120
 Rat Nr-CAM: 79 ATGATCAGCGCTCTGGATGTCCTCTTGATCCAAAAGCTCCCTGATGACTTGGTACAGCCT 138
 Human Nr-CAM: 121 CCAACCATCACCCAACAGTCTCCAAAAGATTACATTATTGACCCCTGGGAGAATATTGTA 180
 Rat Nr-CAM: 139 CCAACTATCACTCAACAGTCACCCAAAAGACTACATCATGACCCAGGGAGAATATTGTA 198
 Human Nr-CAM: 181 ATCCATGTGAAAGCCAAAAGGAAACCGCCCCAAGCTTTCTGGACCCGTAATGGGACT 240
 Rat Nr-CAM: 199 ATCCAATGTGAGGCCAAAAGGAAACCTCTOCRAAGCTTTCTGGACTCGTAACGGAACA 258
 Human Nr-CAM: 241 CATTTGACATGATAAAGACCCCTCTGGTACCATGAGGCTGGCACAGGAACGCTCAT 300
 Rat Nr-CAM: 259 CATTTGACATGACAAAGACCCCTCTGGTACCATGAGGCTGGCTCAGGAACCCCTGTC 318
 Human Nr-CAM: 301 ATTAACATCATGAGCGAAGGGAAAGCTGAGACCTATGAAAGGAGTCTATCAGTGTACAGCA 360
 Rat Nr-CAM: 319 ATCAACATCATGAGTGAAGGAAAGGCGAGACCTATGAAAGGGTTTACCAAGTGCAC TGCA 378
 Human Nr-CAM: 361 AGGAACGAAAGCGGGAGCTCGAGTTCTAATAACATTGGTGTGCGCCATCCAGATCACCA 420
 Rat Nr-CAM: 379 AGGAATGAGCGGGAGCTCGTGTCTCCATAAACATTGGTGTGCGCCCTCTAGGTACCCC 438
 Human Nr-CAM: 421 TTGTGGACCAAAGAARAACCTGACCAATCACACTTCAAGTGGTCAAGTCTTAGTACTT 480
 Rat Nr-CAM: 439 TTGTGGACCAAAGGAAAGACTTGAACCAATAATCTCCGAAGTGGTCAAGTCAGTACTA 498
 Human Nr-CAM: 481 CCTGAGACCCCCAATTGGATTACCAACCCACTATAATATTTGGATGGATAATTCTTT 540
 Rat Nr-CAM: 499 CCATGTAGGCCTCCAAATTGGATTACCAACGGCCATAATATTTGGATGGATAACTCTTT 558
 Human Nr-CAM: 541 CAAAGACTCCACAAAGTGAGAGAGTTCTCAAGGTTGAATGGGACCTTATTTTCC 600
 Rat Nr-CAM: 559 CAAAGACTGCCACAGAGTGAAGGGTTCCCAAGGACTGAATGGAGACCTTACTCTCC 618
 Human Nr-CAM: 601 AATGTCCCTCCCAGAGGACACCGCGAGAGACTATATCTGTTATGCTAGATTAATCATACT 660
 Rat Nr-CAM: 619 AATGTCCCTCCCAGAGGACACCCGTGAGGACTACATCTGCTATGCCAGATTAAATCACA 678
 Human Nr-CAM: 661 CAACACATACGCGAGAACCTATTCTGTGAAGGTGATTTCAGTGGATGAATTGAAT 720
 Rat Nr-CAM: 679 CAACACATTCAACAGAACACACCTATTCTGTGAAGGTGATTTCAGTGGATGAATTGAAT 738
 Human Nr-CAM: 721 GACACTATAGCTGCTAATTGAGTGACACTGAGTTTATGGTCTAAATCAGTAGAGAG 780
 Rat Nr-CAM: 739 GACACTATAGCTGCTAATTGAGTGACACTGAGTTTATGGTCTAAATCAGTAGAGAG 798
 Human Nr-CAM: 781 AGGCCACCAACATTAACTCCAGAAGGCATGCAAGTAACAAAGAGGAAATTAGAGGA 840
 Rat Nr-CAM: 799 AGGCCACCAACATTCTAACTCCAGAAGGCATGAAAGTCACAGGAGAAATTAGAGGA 858
 Human Nr-CAM: 841 AATGTGCTTCACTGGAGTGCAATTGCAAGGACTGCCAACCTTATTTACTGGCA 900
 Rat Nr-CAM: 859 AACGTGCTTCCTGGAGTGCAATTGCAAGGACTGCCAACCTTACTCCAGTTATTACTGGATC 918
 Human Nr-CAM: 901 AAGGAAGATGGAATGCTACCCAAAACAGGACAGTTATAAGAATCTTGAGAAAAACCTTG 960
 Rat Nr-CAM: 919 AAGGRAGATGGAACGCTCTGTCAACCGGACGTTTATCGGAATCTTAAGAAAACCTTG 978
 Human Nr-CAM: 961 CAGATCATCATGTTCAAGACAGACTCTGGAAATTACCAATGATAGCAAAATGCA 1020
 Rat Nr-CAM: 979 CAGATCATCATGTCCTGAAGCAGACTCTGGAAATTATCAGTGCATAGCAAAACGCA 1038
 Human Nr-CAM: 1021 TTAGGAGCCATCCACCATACCAATTCTGTTAGAGTTAAGCGCTCCATACTGGATCACA 1080
 Rat Nr-CAM: 1039 TTGGGAGCGTCCATCATACCAATTCTGTCACAGTTAAGCGCTCCCTACTGGATTGTT 1098
 Human Nr-CAM: 1081 GCCCTCAAAATCTTGCTGTCCCCAGGGAGAGGATGGACCTTGATCTGCAGAGCTAAT 1140
 Rat Nr-CAM: 1099 GCACCTCAACCTCGTCTTCCOCAGGGAGAATGGACCCCTCATCTGCAGAGCTAAC 1158
 Human Nr-CAM: 1141 GGCAACCCAAAACCCAGAAATTAGCTGGTAACAAATGGAGTCCCAATAGAAATTGCCCT 1200
 Rat Nr-CAM: 1159 GGCAACCCAAAACCCAGAAATTAGCTGGTAACAAATGGAGTCCCACTGAGAAATTGCTTC 1218
 Human Nr-CAM: 1201 GATGACCCAGCGAAAAATAGATGGCGATACCRITATTCTCAAAATGTTCAAGAARGA 1260
 Rat Nr-CAM: 1219 GATGACCCAGCGAAAAATGATGGTGAACCCATTATGTTCAAAATGTTCAAGAARGC 1278
 Human Nr-CAM: 1261 TCAAGTGCAGTATATCAGTGCATGCTCTAATGAAATGGATAATTACTGGAAAGC 1320
 Rat Nr-CAM: 1279 TCAAGTGCAGTATATCAGTGCATGCTCTAACAAATATGAAATTACTAGCAAAATGCA 1338
 Human Nr-CAM: 1321 TTGTAATGTCGGCTGAGGCCACCAAGAACTCTCACACCTGCAACACACA 1371
 Rat Nr-CAM: 1339 TTGTAATGTCGGCTGAGGCCACCACTCGGATTCTACCTCAGCAACACA 1389

FIGURE

24



GCGCCGGAATTCTGTTAACTCGAGGATCCGGCTGTG
EcoRI HpaI XbaI BamHI

FIGURE 25A

FIGURE 25B

pCMV-1/3Nr-AS

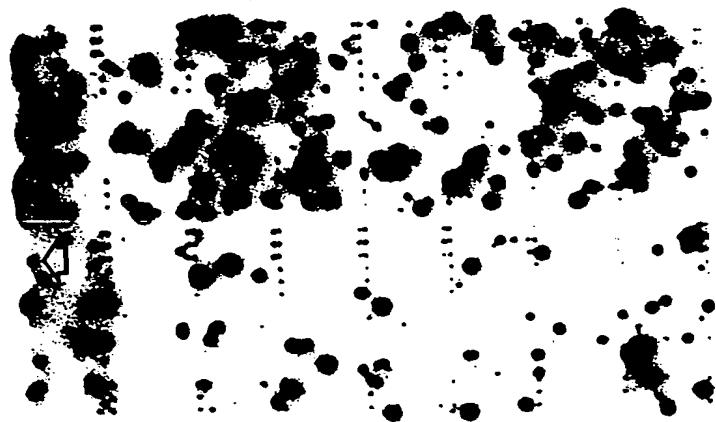


FIGURE 26A

pCMV-neo



FIGURE 26B